

Abstract

A grating is provided in an optical fiber for
adjusting the wavelength of an output light
from the optical resonator which consists
5 mainly of a semiconductor light emitting
device and the optical fiber to be slightly
shorter than a wavelength range of an input
light where the wavelength range of an input
light can be converted by a wavelength
conversion device. As the grating is
10 adjustably expanded with a knob control being
turned, the wavelength of the output light from
the optical resonator is modified to be matched
with the wavelength range of the input light
where the wavelength of the input light can
15 be converted by the wavelength conversion
device. Any change in the center wavelength
of the input light wavelength range where the
wavelength of the input light can be converted
by the wavelength conversion device which
20 results from a variation in the temperature
can be counteracted by a heat-sensitive

expandable lead screw expanding to increase
the length of the grating in the optical fiber
and thus adjust the wavelength of the output
light from the optical resonator composed of
the semiconductor light emitting device and
the optical fiber.

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